

THE VASCULAR FLORA OF A RIVER BOTTOM IN EAST CENTRAL MISSISSIPPI

Walter C. Holmes and Brandi K. Amor

Department of Biology

Baylor University

Waco, Texas 76798-7388 U.S.A.

walter_holmes@baylor.edu

Author's Note: In 1976, this paper, under the title "The Vascular Flora of the Chitlin' Corners Area of Lowndes County, Mississippi," was submitted to *Castanea* for consideration for publication. The paper was rejected, not for deficiencies, but because the journal, in an effort to improve the quality of its content, was no longer publishing floristic checklists. A copy of the manuscript was recently discovered and appears here in basically an unaltered state, other than the nomenclature being updated from 1976 standards to that of USDA, NRCS (2010) and the addition of collection numbers of each species. It is believed that this may be the only record of the flora of the lower portion of the Tombigbee River area of Mississippi prior to the creation of the Tennessee-Tombigbee Waterway and the subsequent raising of the water level. *Phytologia* 92(2): 206-229 (August 2, 2010).

ABSTRACT

The study area, known locally as "Chitlin' Corners," is located on the west bank of the Tombigbee River in Lowndes County in east central Mississippi. Five hundred and ninety-one species are recorded for this area, prior to the construction the Tennessee-Tombigbee Waterway. Among the more unusual plants for east central Mississippi are *Astragalus distortus*, *Phacelia dubia*, *Carex grayi*, *Opuntia pusilla*, and *Tetragonotheca helianthoides*.

KEY WORDS: Mississippi, Lowndes County, Tombigbee River, Tennessee-Tombigbee Waterway, floristics.

The study area, locally known as "Chitlin' Corners," is located on the west bank of the Tombigbee River in the southeast corner of Lowndes County in east central Mississippi. The area includes parts of sections 19, 20, and 28 of Township 20S, Range 19E. Prominent features include the Tombigbee River with its bluffs, mesic woodlands, drainage and swampy areas, oxbow lakes, streams, and oil fields. At the time of the study, there were only a few recreational camps in the area. The major man-made feature was the Southern Natural Gas Pipeline, which crosses the river at this point.

This work comprises the most extensive study of the vascular flora of the Tombigbee River in Mississippi River prior to the now in-progress construction of the Tennessee-Tombigbee Waterway. Since it is not known exactly what changes will accompany the construction and use of the waterway, it is desirable to place on permanent and readily accessible record the results of the study. One previous botanical study was made in the area. Watson and Brown (1967) investigated the arborescent flora, reporting 96 species of trees occurring naturally in the area. The species recorded by Watson and Brown are herein included, with permission, and are annotated by an asterisk.

Geology and Topography

Relief in the area is slight, varying between 42-49 meters. Most of the area appears level. The underlying geologic unit is the Mooreville Chalk (Selma Group) of Upper Cretaceous age (Mississippi Geological Society, 1945). Soils are alluvial and consist of fine sands and sandy loams (Watson and Brown, 1967). Most of the area is subject to periodic inundation, especially the low-lying areas and drainages. The major geologic features of interest were the bluffs which drop abruptly about six meters to the river's edge. In these bluffs, exposed chalk (bedrock) is common. Other features of interest are the oxbow lakes.

Plant Community Types

Although relief is slight, marked variation in communities is easily recognized. The following is a listing of the major communities.

Wooded bluffs: Wooded bluffs have steep slopes with flat, level tops. Seepage areas are common. Plants include *Fagus grandifolia*, *Tilia* sp., *Liriodendron tulipifera*, *Mitchella repens*, and *Polystichum acrostichoides*. The bluff tops are drier and include *Pteridium aquilinum* var. *pseudocaudatum*, *Aureolaria flava*, *Quercus austrina*, *Crataegus* sp., *Vaccinium* sp., and *Pinus* sp. *Ludwigia decurrens*, *Heliotropium indicum*, *Laportea canadensis*, and *Sagittaria latifolia* are common where the seepage areas meet the river.

Open bluffs: These bluffs are practically void of arborescent flora and appear to be scoured by the river and subject to periodic landslides. The sites are dry with chalk exposed in places. Common species include *Ampelopsis arborea*, *Ipomoea* sp., *Xanthium strumarium*, *Eupatorium serotinum*, and *Oenothera biennis*.

Shrub areas (old fields): The shrub area provides the most interesting area for study. Typically, the area is level, has sandy soil, is normally dry, and is not often flooded. Characteristic species include *Vaccinium* sp., *Crataegus* sp., *Celtis tenuifolia* var. *georgiana*, *Prunus* sp., *Opuntia pusilla*, and *Yucca filamentosa*. Herbaceous plants include *Rumex hastatulus*, *Gaillardia aestivalis*, *Solidago discoides*, *Conyza canadensis*, *Pseudognaphalium obtusifolium*, and *Cnidoscolus stimulosus*.

Drainages, lowlands, and wet areas: The areas are periodically inundated and normally moist during most of the year. The topography varies from low-swampy to small ridges that border the low places. Such trees as *Taxodium distichum*, *Carya aquatica*, and *Nyssa aquatica* are common. Other plants include *Smilax* sp., *Berchemia scandens*, *Arisaema dracontium*, and *Saururus cernuus*. On the higher areas that border the low areas, plants such as *Chasmanthium latifolium*, *Carex* sp., *Toxicodendron radicans*, and *Parthenocissus quinquefolia* are common. The more open areas, including some that border on the river, are characterized by *Polygonum lapathifolium*, *Hibiscus laevis*, *Polygonum pensylvanicum*, *Xanthium strumarium*, and *Phyla lanceolata*.

Woodlands: Woodlands are found on higher sites. Some slope gently to the river or other low areas. Dominant plants include *Quercus alba*,

Quercus falcata, *Carya alba*, and *Prunus serotina*. Other plants include *Euonymus americana*, *Lindera benzoin*, *Galium* sp., *Zizia aurea*, *Thaspium trifoliata*, *Viola affinis*, *Sanicula canadensis*, and *Chasmanthium sessilifolium*.

Floristics

The Chitlin' Corners area has a rich vascular flora for east central Mississippi. Some of the more unusual plants found along with comments are listed below.

Astragalus distortus and *Phacelia dubia* are of unusual occurrence in Mississippi, both being very common in open areas during March and April. *Carex grayi* is normally found much further north, this probably being the southernmost extent of its range. *Opuntia pusilla* and *Tetragonotheca helianthoides* are typical of the longleaf pine section of Mississippi. Other interesting plants include *Heliopsis helianthoides*, *Stylosma humistrata*, *Stylosma patens*, *Callirhoe triangulata*, *Sida elliottii*, *Menispermum canadense*, and *Melanthera nivea*. Watson and Brown (1967) recorded the following woody species to be of unusual occurrence in east central Mississippi: *Carya pallida*, *Quercus margarettae*, *Quercus incana*, *Quercus laurifolia*, *Celtis tenuifolia*, *Sideroxylon lycioides*, *Quercus texana*, *Prunus caroliniana*, and *Ilex vomitoria*.

Following is a list of the 591 species of plants known to occur in the Chitlin' Corners area. Nomenclature generally follows that of Radford et al. (1968). Species not native to Mississippi are indicated with a section symbol (§). [Names from Watson and Brown (1967) are noted with an asterisk (*). Collection numbers (all WCH), which follow each species name, were not in the original manuscript.]

The study began April, 1972 and was completed in October 1973. Approximately 30 collecting trips were made. Presently voucher specimens are located at the Northwestern State University Herbarium (NATC), but will eventually be deposited in the personal herbarium of Sidney McDaniel of the Institute for Botanical Exploration, Mississippi State, Mississippi.

Pteridophyta
Filicopsida

Aspleniaceae

Asplenium platyneuron (L.) B.S.P. 1048

Azollaceae

Azolla caroliniana Willd. 2045

Blechnaceae

Woodwardia areolata (L.) T. Moore 1186

Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn var. *pseudocaudatum* (Clute)
Heller 1052

Dryopteridaceae

Onoclea sensibilis L. 1253

Polystichum acrostichoides (Michx.) Schott 902

Ophioglossaceae

Botrychium dissectum Spreng. 1571

Botrychium virginianum (L.) Sw. 948, 1072, 1118

Osmundaceae

Osmunda regalis L. 1856

Polypodiaceae

Pleopeltis polypodioides ssp. *polypodioides* (L.) Andrews & Windham 901

Coniferophyta
Pinopsida

Cupressaceae

**Juniperus virginiana* L.

Pinaceae

**Pinus echinata* P. Mill.

**Pinus taeda* L.

Taxodiaceae

**Taxodium distichum* (L.) Rich.

Magnoliophyta
Liliopsida

Agavaceae

Yucca filamentosa L. 1175

Alistmataceae

Sagittaria latifolia Willd. 1401

Araceae

Arisaema dracontium (L.) Schott 943

Arecaceae

Sabal minor (Jacq.) Pers. 1737

Commelinaceae

- Commelina diffusa* Burm. f. 1139
Commelina erecta L. 1165
Tradescantia ohiensis Raf. 1021, 1108

Cyperaceae

- § *Bulbostylis barbata* (Rottb.) C.B. Clarke 1512
Carex abscondita Mackenzie 1846
Carex amphibola Steud. 1050
Carex bushii Mackenzie 1020
Carex caroliniana Schwein. 964A
Carex cherokeensis Schwein. 1722
Carex crebriflora Wieg. 1727
Carex digitalis Willd. 925
Carex grayi Carey 936
Carex intumescens 1724
Carex joorii Bailey 1882
Carex lupulina Muhl. ex. Willd. 1718
Carex muehlenbergii var. *muehlenbergii* Schkuhr ex Willd.
 1043
Carex retroflexa Muhl. ex. Willd. 959
Carex rosea Schkuhr ex Willd. s.n.
Carex striatula Michx. 912
Carex triangularis Boeckl. 1732
Cyperus croceus Vahl s.n.
Cyperus echinatus (L.) Wood s.n.
Cyperus erythrorhizos Muhl. 1420, 1509
Cyperus pseudovegetus Steud. s.n.
Cyperus retrorsus Chapman 1539
§ *Cyperus rotundus* L. s.n.
Cyperus strigosus L. 1982
Eleocharis microcarpa Torr. 1412
Eleocharis obtusa (Willd.) J.A. Schultes 997
Kyllinga brevifolia Rottb. 1970A
Scirpus cyperinus (L.) Kunth 1822
Scleria triglomerata Michx. 1736

Dioscoreaceae

- Dioscorea villosa* L. 1117

Iridaceae

- Iris virginica* L. 1865

Sisyrinchium albidum Raf. 906A, 961A, 1064

Sisyrinchium angustifolium P. Mill. 961

Sisyrinchium atlanticum Bickn. 963

Juncaceae

Juncus coriaceus Mackenzie 1106

Juncus dichotomus Ell. 1107

Juncus marginatus Rostk. 1010

Juncus repens Michx. 1863

Juncus tenuis Willd. 1101, 1202

Luzula echinata (Small) F.J. Herm. 935, 2050

Lemnaceae

Lemna perpusilla Torr. 982

Spirodela polyrrhiza (L.) Schleid. 1859A

Liliaceae

Allium canadense var. *canadense* L. 962, 1030

Allium canadense var. *mobilense* L. (Regel) Ownbey

Chamaelirium luteum (L.) Gray 1032

Hypoxis hirsuta (L.) 1023

Lilium michauxii Poir. 1322, 1870

Maianthemum racemosum ssp. *racemosum* (L.) Link 1099

Manfreda virginica (L.) Salisb. ex Rose 1365, 1560

Polygonatum biflorum (Walt.) Ell. 940, 1049

Trillium cuneatum Raf. 910

Poaceae

Agrostis perennans (Walt.) Tuckerm. 1655

Alopecurus carolinianus Walt. 1022

Aristida basiramea Engelm. ex Vasey 1530

Aristida dichotomas var. *curtissii* Gray ex S. Wats. & Coulter. 1629

Aristida lanosa Muhl. ex Ell. 1528

Arundinaria gigantea (Walt.) Muhl. 1033, 1278

§

Avena sativa L. 1002

Cenchrus longispinus (Hack.) Fern. 1220, 1435

Cenchrus spinifex (Cav.) 1521

Chasmanthium latifolium (Michx.) Yates. 1197, 1212, 1256

Chasmanthium sessiliflorum (Poir.) Yates. 1267, 1297

§

Cynodon dactylon (L.) Pers. 1180

Danthonia sericea Nutt. 1720

Dichanthelium boscii (Poir.) Gould & C.A. Clark 1137

- Dichanthelium commutatum* (J.A. Schultes) Gould 999, 1056,
1097, 1128, 1131, 1618, 1486
Dichanthelium consanguineum (Kunth) Gould & C.A. Clark
1102, 1122
Dichanthelium dichotomum var. *dichotomum* (L.) Gould 1042,
1103, 1385
Dichanthelium laxiflorum (Lam.) Gould 1012
Dichanthelium oligosanthes var. *oligosanthes* (J.A. Schultes)
Gould 991, 1056A
Dichanthelium scabriusculum (Ell.) Gould & C.A. Clark 1104
Dichanthelium scoparium (Lam.) Gould 1029
Dichanthelium sphaerocarpon var. *sphaerocarpon* (Ell.)
Gould 1098, 1129, 1130
Digitaria cognata var. *cognata* (J.A. Schultes) Pilger 1628
Digitaria sanguinalis (L.) Scop. 1199, 1344, 1423, 1445,
1515, 1602
Digitaria villosa (Walt.) Pers. 1409, 1516
Danthonia sericea Nutt. 1720
Echinochloa colonum (L.) Link. 1847
§ *Echinochloa crus-galli* (L.) Beauv. 1369, 1458
§ *Eleusine indica* (L.) Gaertn. 1497, 1554
§ *Elymus virginicus* L. 1153, 1500
§ *Eragrostis ciliaris* (All.) Vign. ex Janchen 1201
Eragrostis hirsuta (Michx.) Nees 1414, 1483
§ *Eragrostis hypnoides* (Lam.) BSP. 1421
§ *Eragrostis japonica* (Thunb.) Trin. 1327
Eragrostis pilosa (L.) Beauv. 1424
Eragrostis spectabilis (Pursh) Steud. 1303
Gymnopogon ambiguus (Michx.) BSP. 1608
Hordeum pusillum Nutt.
Leersia oryzoides (L.) Sw. 1529
Leersia virginica Willd. 1501
§ *Lolium perenne* ssp. *miltiflorum* (Lam.) Husnot 1210
§ *Lolium pratense* (Huds.) S.J. Darbyshire 1105
Melica mutica Walt. 927
Panicum anceps Michx. 1619, 1666, 1672
Panicum dichotomiflorum Michx. 1422, 1490
Panicum verrucosum Muhl. 1418
Panicum virgatum L. 1310, 1368, 1496

- Paspalum boscianum* Flueggé 1590
Paspalum floridanum Michx. 1366, 1448
Paspalum fluitans (Ell.) Kunth 1450
Paspalum setaceum Michx. 1441
 § *Paspalum urvillei* Steud. 1213, 1390
Piptochaetium avenaceum (L.) Parodi 929, 978
 § *Poa annua* L. 913
Poa autumnalis Muhl. ex Ell. 1019, 1096
Saccharum alopecuroidum (L.) Nutt. 1413
Saccharum brevibarbe var. *contortum* (Ell.) R. Webster 1517,
 1526
Sacciolepis striata (L.) Nash 1674
Schizachyrium scoparium var. *scoparium* (Michx.) Nash 1477
Setaria parviflora (Poir.) Kerguélen 1138, 1430, 1545, 1658
Sorghum halepense (L.) Pers. 1181
 § *Sphenopholis filiformis* (Chapman) Scribn. 965
Sphenopholis nitida (Biehler) Scribn. 926
Sphenopholis obtusata (Michx.) Scribn. 1100
Sporobolus clandestinus (Biehler) A.S. Hitchc. 1564
Sporobolus junceus (Beauv.) Kunth 1551, 1610
Sporobolus indicus var. *indicus* (L.) R. Br. 1269, 1526
Tridens flavus (L.) A.S. Hitchc. 1482, 1518, 1670
Tridens strictus (Nutt.) Nash 1057, 1392, 1615
Tripsacum dactyloides (L.) L. 1178
 § *Triticum aestivum* L. 1004
Vulpia octoflora var. *octoflora* (Walt.) Rydb.

Smilacaceae

- Smilax bona-nox* L. 1670
Smilax rotundifolia L. 1451
Smilax smallii Morong 1046, 1685
Smilax tamnoides L. 1024, 1044
 Magnoliopsida

Acanthaceae

- Justicia americana* (L.) Vahl 1026, 1154, 1242A, 1329
Ruellia caroliniensis (J.F. Gmel.) Steud. 1239
Ruellia humilis Nutt. 1251, 1538
Ruellia strepens L. 1077, 1182, 1384

Aceraceae

- * *Acer negundo* L.

* *Acer rubrum* var. *trilobum* Torr. & Gray ex. K. Koch

* *Acer saccharinum* L.

Amaranthaceae

Amaranthus rufus Sauer 1403

Froelichia floridana (Nutt.) Moq. 1342

Iresine rhizomatosa Standl. 1286, 1399, 1449

Anacardiaceae

Rhus copallina L. 1398

Rhus glabra L. 1357

Toxicodendron pubescens P. Mill. 985

Toxicodendron radicans ssp. *radicans* (L.) Kuntze 1698

Annonaceae

Asimina parviflora (Michx.) Dunal 1194

* *Asimina triloba* (L.) Dunal

Apiaceae

Chaerophyllum tainturieri Hook. 907, 954

Cicuta maculata L. 1231

Cryptotaenia canadensis (L.) DC. 1086, 1232, 1238

§

Daucus carota L. 1127

Daucus pusillus Michx. 1088, 1183, 1261

Eryngium yuccifolium Michx. 1555

Ptilimnium capillaceum (Michx.) Raf. 1148

Sanicula canadensis L. 1184

Spermolepis divaricata (Walt.) Raf. ex Ser. 1040, 1061

Thaspium trifoliatum (L.) Gray 993, 1276, 1284, 1474, 1649

Trepolcarpus aethusae Nutt. ex DC. 1227, 1294

Zizia aurea (L.) W.D.J. Koch 932

Apocynaceae (including Asclepidaceae)

Amsonia tabernaemontana var. *salicifolia* (Pursh) Woods. 921, 979, 1050, 1111

Asclepias tuberosa L. 1188

Asclepias variegata L. 1055, 1542

Asclepias verticillata L. 1353

Matelea gonocarpa (Walter) Shinners 1193, 1510

Trachelospermum difforme (Walt.) Gray 1880

Aquifoliaceae

* *Ilex ambigua* (Michx.) Torr.

* *Ilex decidua* Walt.

* *Ilex opaca* Ait.

* *Ilex vomitoria* Ait.

Araliaceae

**Aralia spinosa* L.

Aristolochiaceae

Aristolochia tomentosa Sims 1854

Asteraceae

Acmeilla oppositifolia var. *repens* (Walt.) R.K. Jansen 1983

Ageratina altissima var. *altissima* (L.) King & H.E. Robins.
1678

Ambrosia artemisiifolia L. 1464, 1484, 1520

Ambrosia trifida L. 1459, 1499

Antennaria plantaginifolia (L.) Richards. 2058

Bidens aristosa (Michx.) Britt. 1436, 1595

Bidens bipinnata L. 1363, 1452, 1491, 1626

Bidens mitis (Michx.) Sherff 1473, 1556, 1609

Boltonia diffusa Ell. 1229, 1360, 1386

Brickellia eupatorioides var. *eupatorioides* (L.) Shinners
1488, 1546

Chrysopsis mariana (L.) Ell. 1519, 1650, 1652

Chrysopsis pilosa Nutt. 1301, 1455, 1561, 1673

Cirsium discolor (Muhl. ex Willd.) Spreng. 1205

Conoclinium coelestinum (L.) DC. 1203, 1308, 1362

Conyza canadensis (L.) Cronq. 1274, 1426, 1624, 1643, 1644

Coreopsis auriculata L. 1206

Coreopsis basalis (A. Dietr.) S.F. Blake 1060, 1081

Coreopsis major Walt. 1190, 1373

Croptilon divaricatum (Nutt.) Raf. 1425, 1514, 1625

Eclipta prostrata (L.) L. 1283, 1379, 1469

Elephantopus carolinianus Raeusch. 1354

Elephantopus tomentosus L. 1295, 1364, 1873

Erechtites hieracifolia (L.) Raf. ex DC. 1593

Erigeron philadelphicus L. 996

Erigeron strigosus Muhl. ex Willd. 1045, 1126, 1540

Eupatorium capillifolium (Lam.) Small 1574

Eupatorium serotinum Michx. 1338, 1475, 1489, 1657

Eurybia hemispherica (Alexander) Nesom 1395, 1645, 1899

Euthamia tenuifolia var. *tenuifolia* (Pursh) Nutt. 1622

Fleischmannia incarnata (Walt.) King & H.E. Robins. 1489A,
1599, 1679

- Gaillardia aestivalis* (Walt.) H. Rock 1058, 1024, 1136, 1280,
1480, 1523
- Gamochaeta purpurea* (L.) Cabrera 924, 1014
- Helenium amarum* (Raf.) H. Rock 1204
- Helianthus angustifolius* L. 1376
- Helianthus giganteus* L. s.n.
- Helianthoides helianthoides* (L.) Sweet 1059, 1079, 1167
- Heterotheca subaxillaris* (Lam.) Britt. & Rusby 1258, 1456
- Hieracium gronovii* L. 1244, 1318, 1378, 1479
- Ionactis linariifolia* (L.) Greene 1607, 1661
- Iva annua* L. 1591
- Krigia caespitosa* (Raf.) Chambers 973
- Krigia virginica* (L.) Willd. 918A
- Lactuca canadensis* L. 1299
- Lactuca floridana* (L.) Gaertn. 1507
- Liatris aspera* Michx. 1841
- Liatris squarrulosa* Michx. 1332, 1838
- Melanthera nivea* (L.) Small 1361, 1367, 1375
- Mikania scandens* (L.) Willd. 1298, 1407, 1527
- Packera anonyma* (Wood) W.A. Weber & A. Löve 1713
- Packera glabella* (Poir.) C. Jeffrey 968, 988
- Pluchea camphorata* (L.) DC. 1394, 1428, 1659
- Prenanthes altissima* L. 1647
- Pseudognaphalium obtusifolium* ssp. *obtusifolium* (L.) Hilliard
& B.L. Burtt 1302, 1405, 1481, 1522, 1550
- Pyrrhopappus carolinianus* (Walt.) DC. 1080, 1277
- Rudbeckia hirta* L. 1173
- Silphium asteriscus* var. *laevicaule* (L.) DC. 1271
- Silphium radula* Nutt. 1828, 1896
- Solidago arguta* var. *boottii* (Hook.) Palmer & Steyermark
- Solidago canadensis* L. 1347, 1437
- Solidago canadensis* var. *scabra* Torr. & Gray 1335, 1537,
1553, 1643
- Solidago caesia* L. 1406, 1506
- Solidago discoidea* Ell. 1305, 1320, 1381, 1487, 1513
- Solidago odora* Ait. 1511, 1664
- Solidago ulmifolia* Muhl. Ex Willd.
- Symphyotrichum concolor* (L.) Nesom 1606

- Symphyotrichum cordifolium* (L.) Nesom 1568, 1572, 1646,
1680
- Symphyotrichum divaricatum* (Nutt.) Nesom s.n.
- Symphyotrichum ericoides* var. *ericoides* (L.) Nesom 1502
- Symphyotrichum lanceolatum* var. *lanceolatum* (Willd.)
Nesom 1667
- Symphyotrichum lateriflorum* var. *lateriflorum* (L.) A.&D.
Löve 1576
- Symphyotrichum patens* var. *patens* (Ait.) Nesom 1562, 1605,
1653
- Symphyotrichum pilosum* var. *pilosum* (Willd.) Nesom s.n.
- Symphyotrichum racemosum* (Ell.) Nesom 1387, 1493
- Tetragonotheca helianthoides* L. 1119
- Verbesina virginica* L. 1492
- Vernonia gigantea* ssp. *gigantea* (Walt.) Trel. 1255, 1346,
1498, 1505
- Xanthium strumarium* L. 1465
- Balsaminaceae
Impatiens capensis Meerb. 1831
- Berberidaceae
Podophyllum peltatum L. 1073
- Betulaceae
**Betula nigra* L.
**Carpinus caroliniana* Walt.
Ostrya virginiana (P. Mill) K. Koch 1878
- Bignoniaceae
Bignonia capreolata L. 945, 1687
Campsis radicans (L.) Seem. ex Bureau 1191
- Boraginaceae
§ *Heliotropium indicum* L. 1323, 1383
Myosotis macrosperma Engelm. 1715
Onosmodium molle ssp. *hispidissimum* (Mackenzie) Boivin
1093
- Brassicaceae
§ *Arabidopsis thaliana* (L.) Heynh. 918B, 980, 1012
Arabis laevigata (Muhl. ex Willd.) Poir. 1084, 1704
§ *Brassica rapa* var. *rapa* L. 906
§ *Brassica juncea* (L.) Czern. 1690
§ *Capsella bursa-pastoris* (L.) Medik. 1697

- Cardamine bulbosa* (Schreb. ex Muhl.) B.S.P 2046
Cardamine parviflora L. 914
Lepidium virginicum L. 965A, 1039
Rorippa sessiliflora (Nutt.) A.S. Hitchc. 923, 1027, 1087,
 1164, 1840
- Buddlejaceae
 Polypteron procumbens L. 1236, 1326
- Cactaceae
 Opuntia pusilla (Haw.) Nutt. 1069, 1078
- Campanulaceae
 Lobelia cardinalis L. 1876
 Lobelia inflata L. 1897
 Lobelia puberula Michx. 1675
 Triodanis perfoliata var. *perfoliata* (L.) Nieuwl. 995
- Caprifoliaceae
 § *Lonicera japonica* Thunb. 1016
 Sambucus nigra ssp. *canadensis* (L.) R. Bolli 1192
 **Viburnum rufidulum* Raf.
- Caryophyllaceae
 § *Arenaria serpyllifolia* L. 969, 1066, 1095
 Cerastium glomeratum Thuill. 915, 920
 Silene stellata (L.) Ait. f. 1355
 Silene virginica L. 987
 § *Stellaria media* (L.) Vill. 1708
- Celastraceae
 Euonymus americanus L. 1116
- Chenopodiaceae
 § *Chenopodium album* L. 1218, 1288, 1431, 1476, 1533, 1544,
 1558, 1669
 § *Chenopodium ambrosioides* L. 1447
- Cistaceae
 Helianthemum georgianum Chapman 1159, 1630, 1803
 Lechea mucronata Raf. 1222
- Clusiaceae
 Hypericum drummondii (Grev. & Hook.) Torr. & Grey 1535
 Hypericum hypericoides (L.) Crantz 1569
 Hypericum lobocarpum Gattinger 1265, 1321, 1548
 Hypericum mutilum L. 1833
 Triadenum tubulosum (Walt.) Gleason 1440

Convolvulaceae

- Calystegia sepium* (L.) R. Brown 1196
Cuscuta gronovii Willd. ex J.A. Schultes 1597
Dichondra carolinensis Michx. 1094
Ipomoea lacunosa L. 1151, 1417A
Ipomoea nil (L.) Roth 1417
Ipomoea pandurata (L.) G.F.W. Mey. 1315, 1341
Jacquemontia tamnifolia (L.) Griseb. 1551
Stylosma humistrata (Walt.) Chapman 1230
Stylosma patens ssp. *patens* (Desr.) Myint 1162

Cornaceae

- **Cornus florida* L.
**Cornus foemina* P. Mill.

Crassulaceae

- Penthorum sedoides* L. 1025, 1389, 1655

Cucurbitaceae

- Cayaponia quinqueloba* (Raf.) Shinners 1337
Sicyos angulatus L. 1404, 1478

Ebenaceae

- **Diospyros virginiana* L.

Ericaceae

- **Oxydendrum arboreum* (L.) DC.
Rhododendron canescens (Michx.) Sweet 1031
Vaccinium arboreum Marsh. 960, 1031
Vaccinium stamineum L. 958
Vaccinium elliottii Chapman 1712

Euphorbiaceae

- Acalypha gracilens* Gray 1532
Acalypha rhomboidea Raf. s.n.
Chamaesyce maculata (L.) Small 1216, 1220A, 1388, 1408,
 1432, 1676
Cnidoscolus stimulosus (Michx.) Engelm. & Gray 992, 1134
Croton capitatus Michx. 1541
Croton glandulosus L. 1215, 1289, 1434, 1563
Euphorbia corollata L. 1109, 1157, 1226, 1275, 1433
Euphorbia dentata Michx. 1330
Phyllanthus caroliniensis Walt. 1620
Sebastiania fruticosa (Bartr.) Fern. 1110
Tragia urens L. 1827

Fabaceae

- § **Albizia julibrissin* Durazz.
Amorpha fruticosa L. 1132
Amphicarpa bracteata (L.) Fernald 1312, 1331
Apis americana Medik. 1370
Astragalus distortus Torr. & Gray 916, 937, 1699
Baptisia alba var. *macrophylla* (Larisey) Isely 1734
**Cercis canadensis* L.
Chamaecrista fasciculata var. *fasciculata* (Michx.) Greene
1588
Chamaecrista nictitans var. *nictitans* (L.) Moench 1377
Clitoria mariana L. 1113
Crotalaria sagittalis L. 1161
Desmodium glabellum (Michx.) DC. 1438
Desmodium glutinosum (Muhl. ex Willd.) Wood 1279
Desmodium nuttallii (Schindl.) Schub. 1552
Desmodium paniculatum (L.) DC. 1512, 1973
Desmodium pauciflorum (Nutt.) DC. 1158, 1848
Dioclea multiflora (Torr. & Gray) C. Mohr 1120, 1185
**Gleditsia triacanthos* L.
§ *Lespedeza cuneata* (Dum.-Cours.) G. Don 1292
Lespedeza stuevei Nutt. 1336, 1648
Mimosa microphylla Dry. 1082, 1358
**Robinia pseudo-acacia* L.
Rhynchosia tomentosa (L.) Hook. & Arn. 1235, 1319, 1825
Senna marilandica (L.) Link 1870
Sesbania herbacea (P. Mill) McVaugh 1454
Strophostyles helvola (L.) Ell. 1219, 1287
Stylosanthes biflora (L.) B.S.P 1147, 1470
Tephrosia spicata (Walt.) Torr. & Gray 1163, 1264, 1300
§ *Trifolium dubium* Sibthorp 933
§ *Trifolium lappaceum* L. 1145
§ *Trifolium resupinatum* L. 1705
§ *Vicia sativa* ssp. *nigra* (L.) Ehrh. 917, 942
Vicia minutiflora F.G. Dietr. 2059,
§ *Vicia villosa* var. *varia* (Host) Corb. 1006
- Fagaceae
- **Castanea dentata* (Marsh.) Borkh.
**Castanea pumila* (L.) P. Mill.

- **Fagus grandifolia* Ehrh.
- **Quercus alba* L.
- **Quercus austrina* Small
- **Quercus coccinea* Meunchh.
- **Quercus falcata* Michx.
- **Quercus incana* Bartr.
- **Quercus laurifolia* Michx.
- **Quercus lyrata* Walt.
- **Quercus margareta*
- **Quercus michauxii* Nutt.
- **Quercus muehlenbergii* Engelm.
- **Quercus nigra* L.
- **Quercus nuttallii*
- **Quercus pagoda* (Ell.) Ashe
- **Quercus phellos* L.
- **Quercus rubra* L.
- **Quercus texana* Buckl.
- **Quercus shumardii* Buckl.
- **Quercus stellata* Wangen.
- **Quercus velutina* Lam.

Geraniaceae

Geranium carolinianum L. 998, 1034

Grossulariaceae

Itea virginica L. 1463

Hamamelidaceae

- **Hamamelis virginiana* L.
- **Liquidambar styraciflua* L.

Hippocastanaceae

**Aesculus pavia* L.

Hydrangeaceae

Hydrangea arborescens L. 1155, 1573

Hydrophyllaceae

Hydrolea ovata Nutt. ex Choisy 1872

Phacelia dubia (L.) Trel. 938, 966, 1013, 1700

Juglandaceae

**Carya alba* (L.) Nutt. ex Ell.

**Carya aquatica* (Michx. f.) Nutt

**Carya carolinae-septentrionalis* (Ashe) Engl. & Graebn.

**Carya cordiformis* (Wangenh.) K. Koch

- **Carya glabra* (P. Mill) Sweet
- **Carya laciniosa* (Michx. f.) G. Don
- **Carya ovata* (Mill.) K. Koch
- **Carya pallida* (Ashe) Engl. & Graebn.
- **Juglans nigra* L.

Lamiaceae

- § *Lamium amplexicaule* L. 2056
- Lycopus virginicus* L. 1895
- Monarda punctata* L. 1304, 1345, 1468
- Physostegia virginiana* ssp. *virginiana* (L.) Benth. 1805
- Prunella vulgaris* L. 1179
- Pycnanthemum albescens* Torr. & Grey 1874
- Salvia azurea* Michx. ex Lam. 1549
- Salvia lyrata* L. 986
- Scutellaria incana* Biehler 1228
- Scutellaria integrifolia* L. 1083
- Scutellaria ovata* Hill 1150
- Teucrium canadense* L. 1241
- Trichostema dichotomum* L. 1416, 1494, 1566, 1668

Lauraceae

- Lindera benzoin* (L.) Blume 1115, 1396
- Sassafras albidum* (Nutt.) Nees 1875

Loganiaceae

- Gelsemium sempervirens* 2046
- Mitreola petiolata* (J.F. Gmel.) Torr. & Gray 1485
- Spigelia marilandica* L. 1071, 1074

Lythraceae

- Ammannia coccinea* Rottb. 1324, 1830
- Lythrum lineare* L. 1832

Magnoliaceae

- **Liriodendron tulipifera* L.

Malvaceae

- Callirhoe triangulata* (Leavenworth) Gray 1090
- Hibiscus laevis* All. 1400
- Hibiscus moscheutos* L. 1859
- Sida elliottii* Torr. & Gray 1543, 1588A
- Sida spinosa* L. 1504

Melastomataceae

- Rhexia virginica* L. 1800

Meliaceae

§ * *Melia azedarach* L.

Menispermaceae

Calycocarpum lyonii (Pursh) Gray 1140, 1207, 1307

Cocculus carolinus (L.) DC. 1260, 1351

Menispermum canadense L. 1092

Molluginaceae

Mollugo verticillata L. 1306, 1536

Moraceae

§ * *Broussonetia papyrifera* (L.) L'Hér. ex. Vent.

* *Maclura pomifera* (Raf.) Schneid.

* *Morus rubra* L.

Nyctaginaceae

Mirabilis albida (Walt.) Heimerl 1146, 1250, 1352

Nyssaceae

* *Nyssa aquatica* L.

* *Nyssa biflora* Walt.

* *Nyssa sylvatica* Marsh.

Oleaceae

* *Chionanthus virginicus* L.

Forestiera acuminata (Michx.) Poir. 1871

* *Fraxinus americana* L.

* *Fraxinus pennsylvanica* Marsh.

Onagraceae

Ludwigia alternifolia L. 1862, 1839

Ludwigia decurrens Walt. 1272A, 1281, 1534

Ludwigia glandulosa Walt. 1864

Ludwigia leptocarpa (Nutt.) Hara 1328

Ludwigia repens J.R. Forst. 1852

Oenothera biennis L. 1262, 1293

Oenothera fruticosa L. 1263

Oenothera laciniata Hill 947, 1037A

Oenothera rhombipetala Nutt. ex Torr. & Gray 1037, 1089

Oenothera speciosa Nutt. 1035

Oxalidaceae

Oxalis grandis Small 974

Oxalis stricta L. 951, 976, 1000, 1003, 1169, 1313, 1429, 1592

Oxalis violacea L. 952, 1683

Passifloraceae

- Passiflora incarnata* L. 1252
Passiflora lutea L. 1660, 1901

Phrymaceae

- Phryma leptostachya* L. 1356

Phytolaccaceae

- Phytolacca americana* L. 1075

Plantaginaceae

- Plantago aristata* Michx. 1143, 1237
Plantago rugelii Dcne.
Plantago virginica L. 905, 946, 1041

Plantanaceae

- * *Platanus occidentalis* L.

Polemoniaceae

- Phlox divaricata* L. 931
Phlox pilosa L. 949, 951, 990, 1085

Polygalaceae

- Polygala grandiflora* Walt. 1142, 1156, 1221

Polygonaceae

- Brunnichia ovata* (Walt.) Shinners 1259, 1466
Polygonum densiflorum Meisn. 1371
Polygonum hydropiperoides Michx. 1208, 1372, 1439, 1644,
1677
Polygonum lapathifolium L. 1171, 1444, 1600, 1823
Polygonum pensylvanicum L. 1243, 1290, 1334, 1446
Polygonum punctatum Ell. 1503, 1565
Polygonum virginianum (L.) Raf. 1254
Rumex hastatulus Baldw. 956, 1008
§ *Rumex crispus* L. 1015, 1054

Portulacaceae

- Claytonia virginica* L. 909, 1682
§ *Portulaca oleracea* L. 1214, 1613

Primulaceae

- Lysimachia lanceolata* Walt. 1317

Ranunculaceae

- Clematis crispa* L.
Clematis reticulata Walt. 1067, 1209, 1224, 1374
Delphinium carolinianum Walt. 1195, 1704
Ranunculus abortivus L. 1005, 1047

Ranunculus hispidus var. *nitidus* (Chapman) T. Duncan 955,
975

Thalictrum thalictroides (L.) Eames & Boivin 2048

Rhamnaceae

Berchemia scandens (Hill) K. Koch 1036

Ceanothus americanus L. 1121

**Frangula caroliniana* (Walt.) Gray

Rosaceae

Agrimonia pubescens Wallr. 1266, 1508

**Amelanchier arborea* (Michx. f.) Fern

Crataegus marshallii Egglest. 1686

Crataegus monogyna Jacq. 1701

Crataegus spathulata Michx. 1702

Crataegus flava Ait. 1706

Geum canadense Jacq. 1149, 1233

Potentilla simplex Michx. 944, 984, 1135

**Prunus angustifolia* Marsh.

**Prunus caroliniana* (P. Mill.) Ait.

**Prunus mexicana* S. Wats.

**Prunus serotina* Ehrh.

**Prunus umbellata* Ell.

Rubus argutus Link 967, 994

Rubus trivialis Michx. 908, 934

Rubiaceae

Cephalanthus occidentalis L. 1350

Diodia teres Walt. 1217, 1249, 1314, 1348, 1453

Diodia virginiana L. 1170, 1246

Galium aparine L. 1076

Galium circaezans Michx. 1133, 1189

Galium pilosum Ait. 1234, 1296

Galium triflorum Michx. 954, 1123, 1225

Galium uniflorum Michx 1187

Houstonia longifolia Gaertn. 1050A

Houstonia pusilla Schoepf 939, 971

Mitchella repens L. 903, 1114

Spermacoce glabra Michx. 1411, 1851

Rutaceae

Ptelea trifoliata L. 1829

**Zanthoxylum clava-herculis* L.

Salicaceae

**Populus deltoides* Bartr. ex Marsh.

**Salix nigra* Marsh.

Santalaceae

Comandra umbellata (L.) Nutt. 981

Sapindaceae

Cardiospermum halicacabum L. 1460

Sapotaceae

**Sideroxylon lycioides* L.

Saururaceae

Saururus cernuus L. 1112

Saxifragaceae

Saxifraga virginiensis Michx. 919

Scrophulariaceae

Agalinis purpurea (L.) Pennell 1472, 135A

Aureolaria flava (L.) Farw. 1316

Lindernia dubia (L.) Pennell 1028, 1274, 1282, 1325

Lindernia dubia (Michx.) var. *anagallidea* Cooperriider 1017

Leucospora multifida (Michx.) Nutt 1018, 1419

Mecardonia acuminata (Walt.) Small 1577

Mimulus alatus Ait. 1272, 1410

Nuttallanthus canadensis (L.) D.A. Sutton 911, 930, 1144

Pedicularis canadensis L. 989, 1053

Penstemon digitalis Nutt. ex Sims 1065, 1141

Scrophularia marilandica L. 1339

§ *Verbascum blattaria* L. 1801

§ *Verbascum thapsus* 1247

§ *Veronica arvensis* L. 970, 1688

Veronica peregrina L. 922, 977

Solanaceae

Physalis angulata L. 1442, 1604

Physalis pubescens L. 1614

Physalis virginiana P. Mill 1009, 1166, 1333

Solanum americanum P. Mill 1257

Solanum carolinense var. *carolinense* L. 1125, 1176

Symplocaceae

**Symplocos tinctoria* (L.) L'Hér.

Tiliaceae

**Tilia* sp.

Ulmaceae

- * *Celtis laevigata* Willd.
- * *Celtis tenuifolia* Nutt.
- * *Planera aquatica* J.F. Gmel
- * *Ulmus alata* Michx.
- * *Ulmus americana* L.
- * *Ulmus rubra* Muhl.

Urticaceae

- Boehmeria cylindrica* (L.) Sw. 1248, 1311
- Laportea canadensis* (L.) Weddell 1291, 1349
- Pilea pumila* (L.) Gray 1461

Valerianaceae

- Valerianella radiata* (L.) Dufr. 1038

Verbenaceae

- Callicarpa americana* L. 1211
- Phyla lanceolata* (Michx.) Greene 1177
- Styloodon carneus* (Medik.) Moldenke 1068
- § *Verbena brasiliensis* Vell. 1391
- Verbena urticifolia* L. 1340

Violaceae

- Viola affinis* Le Conte 1001
- Viola bicolor* Pursh 904, 972
- Viola walteri* House 941, 983

Viscaceae

- Phoradendron leucarpum* (Raf.) Reveal & M.C. Johnston
1684

Vitaceae

- Ampelopsis arborea* (L.) Koehne 1242
- Ampelopsis cordata* Michx. 1861
- Parthenocissus quinquefolia* (L.) Planch. 1462
- Vitis rotundifolia* Michx. 1091, 1402
- Vitis vulpina* L. 1855

ACKNOWLEDGEMENTS

This study was conducted under the direction of J. Ray Watson, then (1972-1973) Associate Professor of Botany, Mississippi State University, while the senior author was a student there. Appreciation is expressed to Sidney McDaniel, Assistant Professor of

Botany at Mississippi State University in 1972-1973, for verification of determinations. Various persons occasionally accompanied the senior author on the field trips. These included McDaniel, Thomas Holmes (the author's youngest brother), and Charles T. Bryson, who also assisted with determinations of the Cyperaceae. Bryson is now a Research Botanist with the USDA-ARS, Crop Production System Unit, Stoneville, Mississippi.

Jason R. Singhurst of the Wildlife Diversity Program, Texas Parks and Wildlife Department, Austin, Texas and Christopher J. Wells of the National Wetland Research Center, USGS, Lafayette, Louisiana reviewed the manuscript.

LITERATURE CITED

- Mississippi Geological Society. 1945. Geologic Map of Mississippi, Jackson, Mississippi.
- Radford, A. E., H. E. Ahles and C. R. Bell. 1968. Manual of the vascular flora of the Carolinas, University of North Carolina Press, Chapel Hill.
- Watson, J. R., Jr. and E. L. Brown. The arborescent flora of a river bottom in east central Mississippi. *J. Mississippi Acad. Sci.* 13: 17-21. 1967.
- Added Reference: USDA, URCS. 2010. The PLANTS Database ([hppt://plants.usda](http://plants.usda.gov), March 2010, National Data Center, Baton Rouge, Louisiana.